moving the laser and the substrate relative to one another; and

activating another portion of the source/drain regions by laser thermal annealing using another pulse of laser energy from the laser,

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wherein the laser and the substrate move relative to one another after each pulse of laser energy and each portion of the source/drain regions receives more than one single pulse of energy from the laser.

REMARKS

At the time of the Office Action dated July 26, 2002, claims 1-14 were pending and rejected in this application. Claim 11 has been amended to clarify that the movement of the laser and substrate is relative to one another.

Claims 1, 3, 8, 10, 11, and 14 are rejected under 35 U.S.C. § 102(a) for lack of novelty as evidenced by Yamazaki et al., U.S. Patent No. 6,242,292 (hereinafter Yamazaki)

In the second enumerated paragraph of the Office Action, the Examiner asserted that Yamazaki discloses a method of manufacturing a semiconductor device corresponding to that claimed. This rejection is respectfully traversed.

Applicants initially note that the Examiner's rejection, which is based on subsection (a) of 35 U.S.C. § 102, is not proper. **See** M.P.E.P. § 706.02(a). Instead, Yamazaki can only be applied under subsection (b) of 35 U.S.C. § 102. Applicants also note that the Examiner's rejection has failed to comport to the provisions of 37 C.F.R. § 1.104(c).[1] In particular, the

[1] 37 C.F.R. § 1.104(c) provides:

Examiner neither clearly designated the teachings in the references being relied upon by the Examiner nor clearly explained the pertinence of the applied prior art. The Examiner's string citation of several column/line locations in Yamazaki is not a clear designation of the teachings being relied upon by the Examiner. As the rejection stands now, Applicants are forced to guess as to which portions of Yamazaki are being relied upon by the Examiner to disclose the particular features being claimed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that one having ordinary skill in the art would have recognized that the identically claimed invention is within the public domain. **ATD Corporation v. Lydall, Inc.**, 159 F.3d 534, 48 USPQ2d 1321 (Fed. Cir. 1998); **Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.**, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994). Furthermore, the Examiner must also establish that the applied reference identically discloses *each* feature of the claimed invention. **In re Rijckaert**, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); **Lindermann Maschinenfabrik GMBH v. American Hoist & Derrick Co.**, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). As part of this analysis, the Examiner must (a) identify the elements of the claims, (b) determine the meaning of the elements in light of the specification and prosecution history, and (c) identify corresponding elements disclosed in the allegedly anticipating reference. **Lindermann Maschinenfabrik GMBH v. American Hoist & Derrick Co.**, **supra**. That burden has not been discharged.

In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

Independent claim 1, in part, recites:

> wherein the movement of the laser and the substrate relative to one another is continuous between and during the steps of activating the portion of the source/drain regions and activating the other portion of the source/drain regions.

After reviewing Yamazaki, however, Applicants are unable to discover where Yamazaki identically discloses this claimed limitation. Thus, Yamazaki fails to identically disclose the invention, as recited in claim 1, within the meaning 35 U.S.C. § 102.

Claims 3 and 8 both recite that each portion of the source/drain regions receives more than one single pulse of energy from the laser. There is, however, no disclosure of this limitation within Yamazaki. Claims 10 and 14 recite that the laser and the substrate move relative to one another at a constant velocity. Again, there is no disclosure of this limitation within Yamazaki. Independent claim 11 recites that the laser and the substrate move relative to one another after each pulse of laser energy and each portion of the source/drain regions receives more than one single pulse of energy from the laser. These features, however, cannot be found within Yamazaki.

The above argued differences between the method defined in the claims and the methodology of Yamazaki undermine the factual determination that Yamazaki identically describes the claimed invention within the meaning of 35 U.S.C. § 102. **Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.**, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); **Kloster Speedsteel AB v. Crucible Inc.**, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Applicants, therefore, respectfully submit that the imposed rejection of claims 1, 3, 8, 10,

11, and 14 under 35 U.S.C. § 102 for lack of novelty as evidenced by Yamazaki is not factually viable and, hence, solicit withdrawal thereof.

Claims 2, 4-7, 9, and 12-13 are rejected under 35 U.S.C. § 103 for obviousness predicated upon Yamazaki

In the fourth enumerated paragraph of the statement of the rejection, the Examiner cited **In re Stevens** and asserted that the features not disclosed by Yamazaki would have been obvious to one having ordinary skill in the art because "it has been held that the provision of adjustability, where needed, involves only routine skill in the art." This rejection is respectfully traversed.

In citing **In re Steven**, the Examiner apparently relied on M.P.E.P. § 2144.04 V.D., entitled "***Making Adjustable***," which is reproduced below:

> In re Stevens, 212 F.2d 197, 101 USPQ 284 (CCPA 1954) (Claims were directed to a handle for a fishing rod wherein the handle has a longitudinally adjustable finger hook, and the hand grip of the handle connects with the body portion by means of a universal joint. The court held that adjustability, where needed, is not a patentable advance, and because there was an art-recognized need for adjustment in a fishing rod, the substitution of a universal joint for the single pivot of the prior art would have been obvious.). (emphasis added)

Thus, the Court in **In re Stevens** made a finding that there was an art-recognized need for adjustment in the fishing rod. As such, the Court held that this art-recognized need provided the requisite motivation to modify the single pivot of the prior art with a universal joint so as to arrive at the claimed handle. The Examiner is referred to the initial sentence of M.P.E.P. § 2144.04, which states that "if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court" (emphasis added). The Examiner, however, has failed to allege, nor is it apparent, that the facts of **In re Stevens** are sufficiently similar to those of the present invention.

Specifically, the Examiner has not established an art-recognized need for the features recited in the claims. The Examiner has also not identified features in the prior art that would have been substituted for by the claimed features based on the unidentified art-recognized need. Thus, the Examiner's reliance upon **In re Stevens** is misplaced. Applicants, therefore, respectfully submit that the Examiner has failed to discharge the initial burden of establishing a prima facie basis to deny patentability to the claimed invention under 35 U.S.C. § 103. **In re Mayne**, 104 F.3d 1339, 41 USPQ2d 1451 (Fed. Cir. 1997); **In re Oetiker**, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).[2] Applicants, therefore, respectfully submit that the imposed rejection of claims 2, 4-7, 9, and 12-13 under 35 U.S.C. § 103 for obviousness predicated upon Yamazaki is not factually or legally viable and, hence, solicit withdrawal thereof.

Attached hereto is a marked-up version of the changes made to the claim by the current amendment. The attached page is captioned "Version with markings to show changes made."

Applicants have made every effort to present claims which distinguish over the prior art, and it is believed that all claims are in condition for allowance. However, Applicants invite the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. Accordingly, and in view of the foregoing remarks, Applicants hereby respectfully request reconsideration and prompt allowance of the pending claims.

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[2] In rejecting a claim under 35 U.S.C. § 103, the Examiner is required to identify a source in the applied prior art for: (1) claim limitations; and (2) the motivation to combine references or modify a reference in the reasonable expectation of achieving a particular benefit. **Smiths Industries Medical System v. Vital Signs Inc.**, 183 F.3d 1347, 51 USPQ2d 1415 (Fed. Cir. 1999).

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417, and please credit any excess fees to such deposit account.

Respectfully submitted,

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Version with markings to show changes made

IN THE CLAIMS:

Please amend claim 11 as follows:

11. (Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming a gate electrode over a substrate;

introducing ions into the substrate to form source/drain regions in the substrate proximate to the gate electrode;

activating a portion of the source/drain regions by laser thermal annealing using a pulse of laser energy from a laser;

moving the laser and the substrate relative to one another; and

activating another portion of the source/drain regions by laser thermal annealing using another pulse of laser energy from the laser,

wherein the laser and the substrate move relative to one another after each pulse of laser energy and each portion of the source/drain regions receives more than one single pulse of energy from the laser.